

IN THE CLAIMS:

Please **AMEND** claims 1, 5, 7, 19, and 20 in accordance with the following:

1. **(CURRENTLY AMENDED)** An apparatus for forming a recording pattern and an erase pattern alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level, respectively, in an optical recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which includes a first multi-pulse having a plurality of first pulses to form the recording pattern in response to the first level of the input data and a second multi-pulse having a plurality of second pulses to form the erase pattern in response to the second level of the input data, wherein a power level of a leading one of the second pulses of the erase pattern is a low level of the second multi-pulse and a power level of a ~~trailing one of the second pulses~~ between an end point of the erase pattern and a start point of a leading one of the first pulses of the recording pattern is a high level of the second multi-pulse.

2. **(ORIGINAL)** The apparatus of claim 1, wherein the recording waveform generating unit generates a cooling pulse as a portion of the first multi-pulse and another portion of the second multi-pulse.

3. **(ORIGINAL)** The apparatus of claim 1, wherein the first pulses of the first multi-pulse each have a first duty cycle and a first amplitude, and the second pulses of the second multi-pulse each have a second duty cycle different from the first duty cycle and a second amplitude different from the first amplitude.

4. **(ORIGINAL)** The apparatus of claim 1, further comprising:

a pickup unit forming a mark corresponding to the recording pattern on the optical disc in response to the first pulses of the first multi-pulse and erasing another mark to form a space corresponding to the erase pattern on the optical disc in response to the second pulses of the second multi-pulse.

5. **(CURRENTLY AMENDED)** An apparatus for forming a recording pattern and an erase pattern alternatively and sequentially on an information storage medium in response to input

data having a first level and a second level, respectively, in a recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which comprises the recording pattern corresponding to the first level of the input data, the erase pattern having a multi-pulse corresponding to the second level of the input data, and a cooling pulse concatenating the recording and erase patterns, wherein a power level of a leading pulse of the erase pattern is a low level of the multi-pulse and a power level of a trailing-pulse between an end point of the erase pulsepattern and a start point of the recording pattern is a high level of the multi-pulse.

6. **(PREVIOUSLY PRESENTED)** The apparatus of claim 5, wherein the generating unit adjusts a pulse of the recording pattern according to a pulse of the multi-pulse of the erase pattern.

7. **(CURRENTLY AMENDED)** An apparatus for forming a recording pattern and an erase pattern alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level, respectively, in an optical recording apparatus, comprising:

a recording waveform generating unit which receives the input data ~~modulated according to according to a Run Length Limited (RLL)(1, 7)~~ and generates a recording waveform which includes a first multi-pulse having a plurality of first pulses to form the recording pattern in response to the first level of the input data and a second multi-pulse having a plurality of second pulses having corresponding high and low power levels to form the erase pattern in response to the second level of the input data, a first one of the second pulses for the erase pattern being at the low level; and

a pickup forming a mark or a space by using the generated recording and erasing waveforms.

8. **(PREVIOUSLY PRESENTED)** The apparatus of claim 1, wherein the recording waveform generating unit generates the recording waveform using the input data modulated according to a Run Length Limited (RLL)(1, 7) method.

9. **(PREVIOUSLY PRESENTED)** The apparatus of claim 2, wherein the recording waveform comprises another recording pattern formed of another multi-pulse, and the recording waveform generating unit adjusts a first one of the multi-pulses of the another recording pattern

to have a power that is other than or equal to a power of a first one of the multi-pulses of the erase pattern.

10. **(PREVIOUSLY PRESENTED)** The apparatus of claim 9, wherein the power of the first one of the multi-pulses of the erase pattern is equal to the power of the first one of the multi-pulses of the another recording pattern.

11. **(PREVIOUSLY PRESENTED)** The apparatus of claim 9, wherein the power of the first one of the multi-pulses of the erase pattern is other than the power of the first one of the multi-pulses of the another recording pattern.

12. **(PREVIOUSLY PRESENTED)** The apparatus of claim 9, wherein the multi-pulse of the erase pattern has a first pulse power and a second pulse power greater than the first pulse power.

13. **(PREVIOUSLY PRESENTED)** The apparatus of claim 10, wherein the multi-pulse of the erase pattern has a first pulse power and a second pulse power greater than the first pulse power, and the power of the first one of the multi-pulses of the erase pattern is equal to the first pulse power.

14. **(PREVIOUSLY PRESENTED)** The apparatus of claim 11, wherein the multi-pulse of the erase pattern has a first pulse power and a second pulse power greater than the first pulse power, and the power of the first one of the multi-pulses of the recording pattern is equal to the first pulse power.

15. **(PREVIOUSLY PRESENTED)** The apparatus of claim 9, wherein the multi-pulse of the another recording pattern further comprises a recording pulse having a recording power greater than the power of the first one of the pulses of the another recording pattern.

16. **(PREVIOUSLY PRESENTED)** The apparatus of claim 1, wherein the recording waveform further comprises a cooling pulse concatenating and included in the recording and erase patterns and having a cooling power less than a power of a last pulse of the first multi-pulse of the recording pattern and a power of a first pulse of the second multi-pulse of the erase pattern.

17. **(PREVIOUSLY PRESENTED)** The apparatus of claim 2, wherein the cooling pulse has a cooling power less than the power of a last pulse of the first multi-pulse of the recording pattern and a power of a first pulse of the second multi-pulse of the erase pattern.

18. **(PREVIOUSLY PRESENTED)** The apparatus of claim 5, wherein the cooling pulse has a cooling power less than a recording power of the recording pattern and a power of a first pulse of the multi-pulse of the erase pattern.

19. **(CURRENTLY AMENDED)** An apparatus for forming a recording pattern and an erase pattern alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level, respectively, in an optical recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which includes a first multi-pulse having a plurality of first pulses to form the recording pattern in response to the first level of the input data, and a second multi-pulse having a plurality of second pulses to form the erase pattern in response to the second level of the input data and having a power level of a leading one of the second pulses of the erase pattern set to be a high level of the second multi-pulse and a power level of ~~a trailing one of the second pulses~~ between an end point of the erase pattern and a start point of a leading one of the first pulses of the recording pattern is set to be a high level of the second multi-pulse.

20. **(CURRENTLY AMENDED)** An apparatus for forming a recording pattern and an erase pattern alternatively and sequentially on an optical recording medium in response to input data having a first level and a second level, respectively, in an optical recording apparatus, comprising:

a recording waveform generating unit generating a recording waveform which includes a first multi-pulse having a plurality of first pulses to form the recording pattern in response to the first level of the input data, and a second multi-pulse having a plurality of second pulses to form the erase pattern in response to the second level of the input data, wherein a power level of a leading second pulse of the erase pattern is set to be a low level of the second multi-pulse and a power level of ~~a trailing second pulse~~ between an end point of the erase pattern and a start point of a leading one of the first pulses of the recording pattern is set to be a low level of the second multi-pulse.